



## Ecosystem Management Program BULLETIN



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### PTA NATURAL RESOURCE PROGRAM

**PROTECTS A RARE NATIVE WEEVIL:** The Natural Resources office at Pōhakuloa Training Area (PTA) is committed to maintaining the natural ecological integrity of its unique areas. Part of this ecology includes a rare native weevil (*Rhyncogonus stellaris*), which is found only at PTA. In 2002, biologists found a single weevil in a fenced rare plant enclosure among *Dodonaea viscosa* (a'ali'i) leaf litter. Eight survey sites have since been established in the same vegetation type and elevation. Sampling began in March 2004, and in August 2004 the weevil was discovered on *Chenopodium oahuensis* ('Āweoweo). Throughout August and September, eighteen individuals (four mating pairs, six males, four females) were found at only one of the eight survey sites. Future survey efforts will include different vegetation types and other potential host plants. We think there is a good potential for finding additional weevils within PTA.



*Rhyncogonus stellaris* male and female

The threats to the weevil include fire, human habitat destruction, and alien predators. Argentine ants (*Linepithema humile*) are known to be aggressive predators of native insects and are located at PTA. Fortunately Argentine ants have not been found at the single site with known weevil individuals. The other seven sites surrounding the population of

weevils have Argentine ants. Surveys of the ant population boundary are currently underway. By trying to control the spread of the ants, we hope to restore potentially favorable weevil habitat.

### SMITHSONIAN TO RECEIVE US ARMY GARRISON HAWAII ARTIFACTS:

The significance of Wheeler Army Airfield to US history will be recognized by adding to the collection of The Smithsonian Institution two bullet ridden windows from Hangar 206. Hangar 206 is currently the home of the 68<sup>th</sup> Medical Company, a medical emergency response team. Remarkably, the windows have survived sixty four years in place, since the Japanese attack on 7 December, 1941. The panes were removed because the deteriorated windows in the hangar were scheduled for replacement. One of the



David Cox, Cultural Resources, removing windows to send off

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windows will be displayed in the Stephen F. Udvar-Hazy Center of World War II History part of the Smithsonian's National Air and Space Museum and the other will be added to the collection of the Military History Gallery of the National Museum of American History located on the mall in Washington D.C. The staff of DPW-Environmental facilitated the removal and curation of these windows to America's most prominent museum.



1941 era bullet hole marking one of the windows at Wheeler

**THE ARMY HELPS MAKE A DIFFERENCE:** It was a rainy windy day on October 22, 2005 when 28 infantry men from Schofield Barracks joined forces with six staff from the Army Natural Resource Center to remove invasive species from Mākua Valley. Despite the weather, the group was organized and motivated and did a great job removing haole koa (*Leucaena leucocephala*) and a few other invasive species from around endangered native Hawaiian



*Hibiscus brackenridgei* ssp. *mokuleianus* in Mākua Valley

plants including 'Akoko (*Chamaesyce celastroides* var. *kaenana*) and the yellow hibiscus (*Hibiscus brackenridgei* subsp. *mokuleianus*). The 'Akoko is named for Kaena point and the yellow hibiscus is Hawaii's State flower. Both taxa have flourished in the valley since chocking invasive species have been removed and maintained. Army Natural Resource Staff are continuously working around these endangered plants to promote common native species and remove alien species that continuously invade from surrounding areas. Approximately one acre was cleared of invasive haole koa. Hundreds of plants were removed in this cooperative effort. It would have taken Army Environmental staff a full day to complete what this larger work force accomplished in just a couple of hours. Army environmental is grateful for the assistance provided and look forward to other opportunities to work with Army personnel.



*Chamaesyce celastroides* var. *kaenana*, 'Akoko

## PŌHAKULOA CURATION FACILITY

**COMPLETED:** They're all here and accounted for! says Bill Godby, PTA cultural resource manager, with a smile. All artifacts collected within Pōhakuloa Training Area that is. For the last six years there has been a push to have the companies and institutions who have conducted archaeological work at PTA return cultural artifacts to their place of origin. The PTA curation facility was founded by Jade Moniz-Nakamura in 1998, for this very purpose. As of October 2005, the cultural resource management staff can proudly say that all artifacts are cataloged into the PTA-CR database and are being conserved in the climate controlled facility at Pōhakuloa. These artifacts are slated to serve as a research tool for



students, archaeologists, and the public. The artifacts will provide for insights into the cultural traditions of the Pōhakuloa area. Six sturdy archival cabinets were installed in October to provide easier access and a friendlier environment for the collections and those who wish to study them. The intention of the facility is to better inform and educate the community of the native Hawaiian traditional and historic practices of Pōhakuloa and most importantly maintain the cultural material in the area from which it came.



*Kama'a ti or ti leaf sandals*

#### **PASSIFLORA MOLLISIMA IN KIPUKA**

**ALALA:** *Passiflora mollisima*, commonly referred to as Banana Poka, is an invasive plant species native to central America. It currently covers thousands of acres on Kaua'i and the Big Island and threatens important nesting habitat for Pōhakuloa Training Area's diminishing 'Elepaio (*Chasiempis sandwichensis sandwichensis*) population and populations of the endangered plant, *Spermolepis hawaiiensis*. This climbing, semi-woody vine forms a dense canopy, smothering native forest habitat. Its fruit provides a preferred diet for non-native pigs and game bird species, that act as vectors for seed dispersion. The PTA Natural Resource Office is attempting to eradicate this species through chemical control measures. Over one square kilometer, 29 personnel days and 145 personnel hours later, we have eradicated approximately 2,200 individuals. We are currently working to eradicate this plant from an adjacent block of habitat, however, while recently conducting an ungulate survey of the area, additional *P. mollisima* populations were found. Our next control phase will consist of treating those areas with the heaviest infestation of this noxious weed. Due to



*Passiflora mollisima*, Banana Poka, at PTA.

the surprisingly large populations we have recently discovered, we are considering changing our control strategy to include only eradication of fruiting adults.

**ENVIRONMENTAL ASSESSMENT FOR MAKUA IMPLEMENTATION PLAN COMING SOON.** The Environmental Assessment (EA) for the Mākua Implementation Plan, a multi-species endangered species management plan, is planned for release to the public for comment within the month of January 2006. The purpose of the management plan is to mitigate for effects to 27 listed endangered plant species and one tree snail species, *Achatinella mustelina*, caused by military training within Mākua Military Installation. Many of these species are very rare and occur in small populations throughout the Wai'anae Mountains. For this reason, the management plan includes management actions on not only Army owned or controlled lands but also on Board of Water Supply, Hawaii Department of Land and Natural Resource, State Parks, The Nature Conservancy, and Dole Pineapple Company lands. The management actions are concentrated within 21 different management units, 19 in the Waianae Mountains and 2 in the Koolaus. The plan includes all the measures needed to bring these 28 species to stable levels. Stabilization measures include all the measures needed to control the various threats to these species so that the number of individuals found within three spatially separated plant and eight snail populations return to sustainable levels. These actions include fencing small or large land areas to exclude non-native ungulates, setting up rat baiting grids, collecting plant propagules for storage and outplanting purposes, creating new or



bolstering existing plant populations with individuals through outplanting, control of non-native plant species through chemical and mechanical means, and monitoring of existing population.



*Pritchardia kaalae*, Loulu Palm, in Makua Valley

Please refer to the State Office of Environmental Quality Control Bulletin (<http://www.hawaii.gov/health/oecq/>) for an announcement of the comment period. Once released, copies of the EA can be obtained from Dale Kanehisa, Environmental Division, Directorate of Public Works, US Army Garrison, Hawai'i, Schofield Barracks, HI 96857-5013, Fax:(808) 656-1039/Email: [kanehisd@schofield.army.mil](mailto:kanehisd@schofield.army.mil)

### INTRODUCING NEW MEMBERS OF THE O'AHU AND PTA STAFF:

Glenn Escott began working in the Environmental Office at PTA in October of this year. He has an M.A. in archaeology from the University of Hawai'i-Manoa and has worked for private cultural resource management companies in Hawai'i for over four

years. He has carried out numerous archaeological projects at prehistoric and early historic sites at various locations on the Island of Hawai'i. Most recently he directed Phase II archaeological investigations at the old Ke'āmuku Sheep and Cattle Station in Waikōloa in preparation for the Stryker Brigade Training Area acquisition. Glenn has lived and worked in China, Taiwan, and Vietnam. He enjoys working outside in Hawai'i, hiking, fishing, shooting fish, and playing music.

Kelly Leialoha Luscomb began working with PTA in July as a cultural resource specialist. She has a degree in anthropology from the University of Hawai'i -Hilo and spent the first two years of her career with Hawai'i Volcanoes National Park cultural resource division. Kelly was originally born in Kailua, O'ahu and enjoys the outdoors.



Kelly Leialoha Luscomb and Glenn Escott

Alea Trafton began work as the Monitoring Program Manager in early October 2005. She will be developing our monitoring program to meet reporting requirements set out in the Makua Implementation Plan (MIP). Alea has a B.S. in Ecology and Evolutionary Biology from the University of Arizona and minors in Chemistry, Math and Physics. She is receiving her M.S. in Biology from the University of New Mexico where she did her thesis on the plant physiology of an invasive tree species there. Alea was born and raised in New Mexico so adjusting to the thick tropical Hawaiian vegetation will be her first order of business. Our first challenge is to not mispronounce her name. We all called her Ale`a which would be natural Hawaiian pronunciation. She has an





Alea Trafton, Monitoring Manager, and Stephanie Joe, Research Specialist

extensive monitoring background having worked in the Pueblo Santa Ana for a Native American Tribe. Welcome aboard Alea!

Stephanie Joe began work as our Natural Resource Research Specialist in early September 2005. She will be coordinating and conducting research related to control of invasive invertebrate species. Steph has her B.S. in Integrative Biology from Evergreen State College in Washington State and is a M.S. Candidate in Botany at the University of Hawai'i. Her M.S. is focusing on much needed research on alien slug impacts to native Hawaiian plants. Her first order of business on board with our program is to continue her slug research in the realm of developing control techniques for use in natural areas. This work will involve working with the Hawai'i Department of Agriculture to acquire special use permits for certain slug baits. She will also be coordinating with Black Twig Borer (*Xylosandrus compactus*) and *Euglandina rosea* researchers. Steph has spent the last eight years working with invasive species in Hawai'i. She has worked with *Vespula*, coqui frogs, Argentine ants and many more. With this extensive experience and the enthusiasm that she brings to every project she works on, we are certain Steph will be an asset to our team.

Darryl York was recently hired as the Army's Biologist at the Pōhakuloa Training Area. Darryl has spent the last two years working at PTA for Center for Environmental Management of Military Lands as a biologist conducting field research on Hawaiian hoary bats, native bird surveys, and rare plant survey

and monitoring. Prior to moving to the Big Island he worked for USFWS-Ecological Services in the Wyoming Field Office. Darryl's in depth knowledge of the Section 7 process is an invaluable asset to the Pōhakuloa team. Welcome Darryl!



Darryl York, PTA Biologist

Alan K. L. Goo  
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